

Remarks/Arguments

Applicant has amended the independent claim 11 to recite specific RAFTIN1 sequences disclosed in the specification.

Claims 12, 13 and 16 have been amended to remove "sequence encoding" since it makes no sense that a vector (one nucleotide sequence) would encode a construct (another nucleotide sequence). Rather, the vector comprises the constructs.

Claims 20, 22, 24, 26 and 28 have been cancelled in view of the amendment to claim 11. Claim dependencies have been amended in the claims in view of the cancellation of these claims.

Paragraph 5 of the Office Action

Applicant has capitalized the trademark as required by the Examiner.

Paragraph 6 of the Office Action – Written Description (35 USC §112)

The amended claims only recite specific RAFTIN1 sequences disclosed in the specification. Applicant respectfully submits that the amended claims comply with the §112 Written Description requirements.

Paragraph 7 of the Office Action – Enablement (35 USC §112)

The Examiner contends that only the constructs specifically shown to confer male sterility or modulated male fertility are enabled in the specification. Applicant respectfully disagrees. The amended claims now refer to specific RAFTIN1 sequences, all of which are more than 23 bases long. Further, it is expected in this art that any combination of the recited nucleotide sequences, one in the sense orientation and one in the antisense orientation, in the construct will result in gene silencing and thereby confer male sterility or modulated male fertility in the plants. Applicant draws the Examiner's attention to the following articles which accompany this response:

Dwivedi et al. *Plant Molecular Biology*. 26: 61-71 (1994).
Lawrence and Pikaard. *The Plant Journal*. 36: 114-121 (2003).
Travella et al. *Plant Physiology*. 142: 6-20 (2006).

Dwivedi et al. demonstrate that in antisense silencing techniques, homology of the antisense sequence to the gene being silenced need only be on the order of about 70% to result in successful silencing (see page 69, second column, first full paragraph, highlighted section). Lawrence and Pikaard demonstrate that a single RNAi-inducing transgene can dominantly repress multiple orthologs (see last line of Summary on page 114).

Travella et al. demonstrate that RNAi silencing in hexaploid bread wheat has the same effect on all three homoeologous genes (see abstract on page 6 and second column, just before Results on page 7).

These references are listed in an Information Disclosure Statement filed concurrently under separate cover and enclosed therewith.

Thus, it is fully predictable that multiple genes can be silenced by one nucleotide sequence and that all of the sequences recited in the amended claims would be useful in the RNAi silencing construct for conferring male sterility or modulated male fertility.

Applicant has specifically exemplified the making and using of hairpin constructs comprising certain of the specific nucleotide sequences recited in the claims, and it is well within the abilities of one skilled in the art to make and use hairpin constructs comprising any of the other specific nucleotide sequences recited in the claims.

The Commissioner is hereby authorized to debit \$1,600.00 from Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP, representing a one month extension of time fee, three extra independent claim fees and the Request for Continued Examination fee.

The Commissioner is hereby authorized to charge any additional fees, and credit any over payments to Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP.

The undersigned is hereby submitting this paper under 37 C.F.R. § 1.34 as being authorized to file this Response.

Respectfully submitted,
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1. References